# Charter

**NASA**
National Aeronautics and Space Administration

**George C. Marshall Space Flight Center**
Marshall Space Flight Center, Alabama 35812

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| Science and Mission Systems Office | MPR 1100.1 | Charter Number: VP01 |
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**Subject:** Science and Mission Systems (S&MS) Office

MISSION STATEMENT
The mission of the Science and Mission Systems Office (S&MS) is to conceive, develop, integrate, operate, and manage programs, projects, and activities; to perform basic and applied research to achieve NASA science and exploration objectives; and to develop new systems, solutions, and technologies for exploration.

GENERAL RESPONSIBILITIES
Manage the project planning, budgeting, scheduling, engineering design, development, testing, cost control, sustaining engineering, and operations of assigned programs/projects/activities in support of NASA's exploration and science objectives.

Provide management oversight of future projects assigned to Marshall Space Flight Center (MSFC) that are crosscutting functions associated with immediate and long-range objectives and goals of NASA and MSFC. Negotiate, establish, and maintain collaborations with other NASA Centers, NASA missions, other governmental agencies, industry, and academia as necessary in support of the NASA mission to explore space and to develop products that benefit humankind.

Develop, implement, and manage strategies, opinions, and efforts for maturing new technology for advanced space transportation and propulsion systems. Develop concepts and manage the development of technologies to support the Agency's Vision for Space Exploration. Visualize, plan, and advance potential space systems that may mature into future projects or activities. Market new and existing projects and capabilities in concert with the New Business Acquisition Team.

Conduct and integrate basic and applied research in support of NASA's objectives. Generate and disseminate new knowledge with the science community and the public. Provide NASA leadership to the National Space Science Technology Center (NSSTC) in cooperation with other government agencies, academia, and industry.

SPECIFIC RESPONSIBILITIES

1. Manage the project planning, budgeting, cost control, scheduling, engineering design, development, testing, sustaining engineering, and operations of space exploration systems, advanced capabilities, and space system infrastructure projects and activities, including habitats, carriers, major infrastructure elements and subsystems, human space flight payloads and facilities that accommodate payloads in support of the Exploration Systems and Space Operations Mission Directorates. Task and project phases include definition, design, analysis, oversight, integrated product team leadership, hardware/software development, and operations support. Focal areas include development of propulsion systems, subsystems, and components and space transportation elements, systems, and subsystems. Manages and integrates project activities for ground and flight research, definition, technology, and demonstration for Earth-to-orbit, and crosscutting transportation application. Manages and integrates project activities for ground and flight research, definition, technology, development, demonstrations of advanced high-power space propulsion systems, and the supporting research and technology efforts involving nuclear technology. Develop processes and strategies in support of the Constellation Program and perform the management and execution of Level II functions.

2. Manage lunar programs/projects and activities in support of NASA's exploration objectives. Manages the Lunar Precursor and Robotics Program (LPRP) for the Exploration Systems Mission Directorate and the Lunar Science Program (LSP) for the Science Mission Directorate at NASA/HQ. Manages the project planning, budgeting, scheduling, engineering design, development, testing, cost control, sustaining engineering, and operations of the LSP lander mission. In addition, provides the design, development, test, and engineering/evaluation of the Lunar descent module for the Constellation Program's Altar Lander Project.

3. Manage programs/projects and activities to support space science, earth science, and optics. Manage the operations and data analysis of the Chandra X-ray Observatory Program through the Operations Control Center and the Chandra X-ray Center in Cambridge, MA. Manage the operations and data analysis of the Gravity Probe B Program through the Mission Operations Center at Stanford University. Manage the Discovery and the New Frontiers programs for Science Mission Directorate at NASA/HQ. MSFC program manager has programmatic responsibilities for each project development, launch, on-orbit checkout, missions operations, and data analysis. Manages and integrates project activities for ground and flight research, definition, technology, and demonstration supporting in-space propulsion-unique applications.

4. Provides NASA leadership to the NSSTC in cooperation with other Government agencies, academia, and industry. Proposes new scientific programs to appropriate funding sources to advance the state of the art in theoretical, computational, analytical, instrumental, and observational space and Earth science. Where appropriate, applies technologies or theoretical models developed in the process to support the missions of other Federal agencies. Publicizes knowledge gained to the scientific community and where results have intrinsic interest and can be appreciated in non-technical terms, to broader audiences. Partners with local, national, and international scientists to achieve goals. Provides training experience for undergraduate and graduate students in the Earth and space sciences. Serves on national committees and participates in setting the direction in which the Agency's scientific programs in Earth and space sciences should go. Provides unique world class facilities and capabilities for optics fabrication, metrology, and testing that will benefit NASA, other governmental agencies, academia, and industry.

*original signed by*

David A. King
Director